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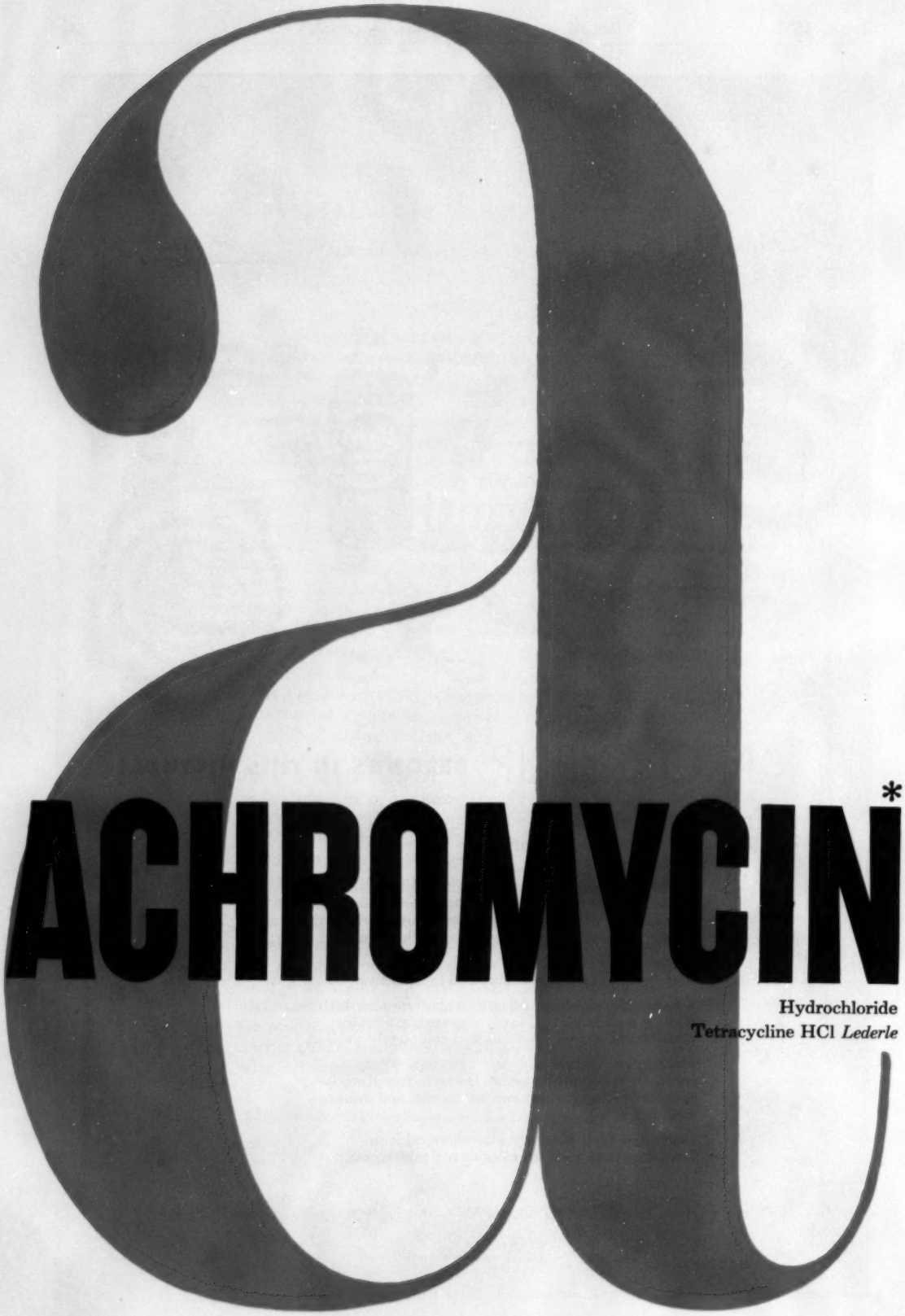
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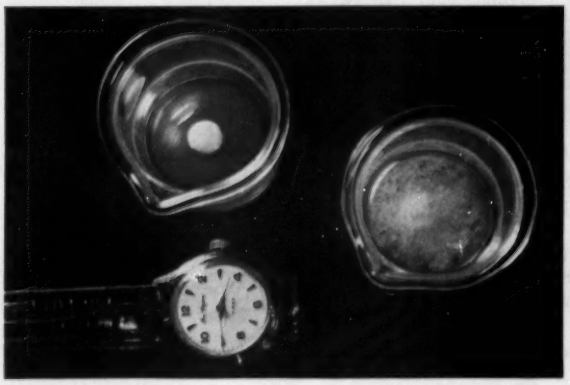

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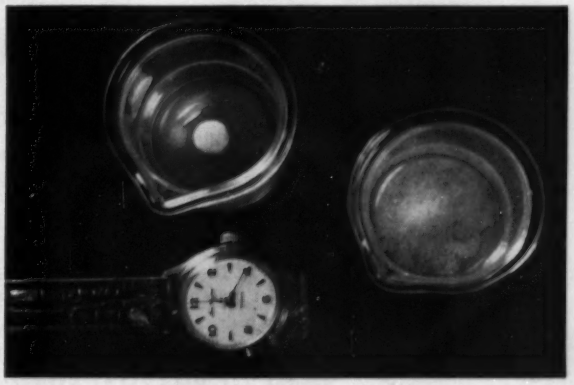

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THE ABUSE OF THE BARBITURATES*

HAROLD W. LOVELL, M.D.,**
New York, N. Y.

Drug addiction and alcoholism are two public health problems of tremendous magnitude causing social havoc in the homes as well as in the individual lives of those afflicted. Neither may be properly considered alone because rarely, if ever, do they occur in poor culture. They account for great loss of productivity, productive manpower, and they constitute a heavy drain upon the public treasury.

However, the greatest toll in patient and family suffering, in physical and mental suffering, is incapable of measurement in dollars. We do not know with exactitude the number who are afflicted, but we do know that one or another combination of the various remedial techniques now available is likely to prove effective, providing only that the afflicted patient develops a sincere desire to get well before he is too seriously injured by his disease.

Accurate delineation of the problem of barbiturate addiction and alcoholism in our country has been impossible because of our complacency, on the one hand, and our traditional but unintelligible prejudices, on the other.

Until a very few years ago, when it was feared that an epidemic of teen-age drug addiction was swamping the nation, we had a comfortable feeling that drug addiction constituted a little more than a minor police action. But in 1950 and 1951, the exaggerated report of the incidence of drug addiction among our adolescent society alarmed our people and demanded immediate action. The near-panic reaction of frightened parents, of overzealous public officials, and others, brought about the adoption of resolutions calling for a crusade to wipe out the dope menace.

Although the mass hysterical reaction led to many extreme and unwise acts, much that is good has come from the drug scare. The public was jarred from its former complacency about the illicit narcotic traffic. Federal, state and local legislative action was taken to tighten control and increase punishment to offenders. Attention was focused not only upon narcotic addiction but upon the overindulgence of our people in the barbiturates, with consequent barbiturate addiction.

Above all, the public learned that these addictions must be regarded as real diseases which can and do affect every segment of our population, rather than just the underprivileged, or Skid Row, groups.

It is unfortunate that narcotic addiction, which involves such a small fraction of our population, should have received so much more attention than barbiturate addiction or alcoholism, either of which can be equally, if not more, incapacitating, and affects so many.

There are some 50,000 to 60,000 narcotic addicts in the United States today, of whom about 10,000 are teen-agers. This is good and sufficient reason for real concern and intensified research into better methods of controlling analgesic drugs and treating those addicted to them. However, these figures represent a decided improvement since World War I, when it was estimated that the incidence of narcotic addiction was 150,000, over twice the present figure. From the available data, it appears that the incidence of this type of addiction among our teen-agers is slightly lower today than it was then.

Not so with hypnotic and sedative drugs, and with alcohol. Addiction to the barbiturates is very common and appears

*Read before the Medical Society of Delaware, Wilmington, October, 13, 1953.
**Associate Professor of Neurology, New York Medical College.

to be increasing, whereas narcotic addiction has decreased importantly since the high point was reached near the end of 1950.

The manufacture and use of barbiturates in this country has multiplied in recent years far beyond the medical requirement of the drug. Barbiturate manufacture has jumped by 1,000 per cent since 1933. More than a million pounds were produced in 1951 alone, enough to furnish a sleeping pill dose to 12 million Americans every night of the year.

Since 1933, deaths from accidental barbiturate poisoning have about quadrupled, and sleeping pill suicides have multiplied some sixfold. About 1,500 deaths due to barbiturate poisoning occur annually in the United States. Barbiturate addicts may also ingest excessive amounts of these drugs when their judgment has been impaired by chronic intoxication. Alcoholics may do the same, and the combination of alcohol and barbiturates seems to produce toxic effects which are in excess of merely additive actions of these drugs.

Until rather recently, barbiturates were believed to be non-habit forming and non-addicting. But it is now generally recognized that they are not only habit-forming but addicting, and that their abrupt withdrawal from addicted persons is followed by severe and dangerous signs of abstinence. Initially, the symptoms of intoxication may abate and the patient appear to be improved. They then become nervous, restless, apprehensive, feel weak, and may vomit. Finally, convulsions occur, resembling those of grand mal epilepsy. The number of convulsions varies. Some persons escape seizure entirely; others may have a few, and others may have repeated convulsions.

After convulsions cease, patients may recover without further incident, or they may go into psychosis. The delirium usually begins and is worse at night. It is characterized by disorientation of time and place. Vivid hallucinations, usually visual but sometimes auditory, are present. Untreated delirium may persist from two to sixty days. During the delirium, fever, elevation of the non-protein nitrogen may occur. Blood pressure is elevated, and pulse and respiratory rates are increased.

Like abstinence from morphine, abstinence from these hypnotic drugs is a self-limited condition, and patients recover completely provided they are sufficiently protected and not allowed to become dangerously exhausted.

Most important of all of the depressant drugs, statistically, is alcohol. Alcoholism is on the increase and presently ranks as the fourth American disease, following only heart disease, cancer and tuberculosis. It is estimated that there are some four million chronic alcoholics in the United States, in addition to the many millions more who become pathologically intoxicated occasionally.

The incidence of the disease among young people and women is increasing. Interesting is the fact that of the 70 million Americans using alcoholic beverages in one form or another, about 94 per cent are successful, pleasure-seeking social drinkers, but the remaining 6 per cent, which is approximately one in sixteen, drink because they feel they have to. When alcohol is associated with the barbiturates, control is lost and replaced by compulsion, associated, apparently, with a curious sensitivity to the offending depressant beverage or drug.

It is still believed by most people that the cause of addiction is not drugs but human weakness, and that addiction usually is the symptom of a personality maladjustment rather than a disease in its own right. Those who hold to this type of thinking generally imply that the person who becomes addicted was originally pathologically afflicted, either mentally or morally, or both. He is looked upon characteristically as weak, the assumption being that he is physiologically and biochemically normal.

Such reasoning has retarded medical progress, and is due, apparently, to the difficulty which doctors experience when they turn from consideration of the physiological to the psychological approach,

and vice versa. When we are accustomed to thinking in terms of organic disease, it is hard to leave that field and turn to a consideration of the psychological implications of the situation. For the physician this is a mental somersault. It is like leaving one environment, to which he is accustomed, and attempting to adjust quickly to another. This produces an unpleasant sense of confusion in the doctor's mind, with the result that he has an unfortunate tendency to remain in one field.

An understanding of addiction calls for orientation in both fields concurrently, so that the doctor may determine not whether addiction is mental or physical but how much of either, and the effect or relationship of one to the other. Attention is drawn to the importance of the adrenal glands in the adjustment of the person to his environment. Worry, etc. may act as stimuli affecting deficiency of the adrenal cortex. On the other hand, adrenal cortical deficiencies, however developed, may be responsible for nervous symptoms ranging from irritability to depression, negativism, and other important personality changes.

Here, then, is an example of subtle psychosomatic interplay in which mental stimuli initiate psychosomatic response which in turn stimulate further pathology. Adding to the complexity of this situation is evidence that alcohol and certain drugs decrease the lipoid contents of the adrenals.

With this concept, it was postulated in 1949 that alcohol and drug addiction might be added to the growing number of disorders previously interpreted on a functional or mental basis, but later regarded as having important basic organic concomitants. Studies of patients with chronic alcoholism indicated adrenal cortical deficiency in many instances. Frequently the alcoholic, particularly during the acute phases, with adrenal and pituitary hormones, was associated with striking improvements in relief from his anxieties, tensions and other functional or neurotic manifestations. The findings among the narcotic and barbiturate addicts were similar in many instances, but less conclusive generally, and the response to hormone treatment less satisfactory.

Although the evidence is not entirely conclusive, it appears that the drug addiction and alcoholism affect all personality types rather than just the weak or maladjusted psychopath. In this connection, it is interesting that those whom one might consider the weakest mentally, that is, those with major psychoses, such as schizophrenia, manic depressive psychosis, and the like, seldom become addicted.

On the other hand, it is not unusual for successful and apparently normally adjusted persons to develop one addiction or another.

The availability of drugs in relation to addiction is reflected in the relatively high incidence of drug addiction among physicians, nurses and pharmacists. There can be no question but that addiction in every form is more or less progressive, insidious and deteriorating, causing aggravations of existing personality defects and the development of others. Therefore, until further research clarifies many of the existing unknowns about the addicted individual, it would seem wise not to generalize about the kind of neurosis or personality fault underlying or predisposing his addiction. Better that we wait until our erudition permits us to accurately predict among, let us say, the high school juniors and seniors who will become addicted, before categorizing the addiction neurosis.

There are many who quarrel with the concept of drug addiction or alcoholism as diseases. They psychologize about their being only symptoms of the basic or underlying neurosis. The psychiatric aspects of this fundamental neurosis are concerned with such factors as instinctive impulses, which drive these individuals to search for a type of pleasure that only alcohol or drugs can supply.

There is the belief that the addict was psychologically injured earlier in life, causing him to remain more or less infantile with respect to certain facets of his personality. In this connection, it is pointed

out that the addict endeavors later in life to seek through indulgence in drugs or alcohol that brand of psychological or physiological gratification which was supplied by his mother during his infancy. Some have endeavored to treat with one or another psychiatric technique the underlying neurosis in the hope that its resolution would cure the resultant symptomatic addiction.

Failure of this type of treatment alone is due probably to failure of the psychiatrist to treat the addiction as disease first, and the associated or underlying neurosis second. It would seem, therefore, that he has the cart in front of the horse This would be like trying to cure cancer by removing the causative agent without attacking the cancer directly.

Like cancer, addiction once developed proceeds on its own momentum as a new and unique disease, and therefore must be treated as a special kind of independent illness. The instability of world affairs and the mounting tensions of our age are driving more and more of the older age groups to turn to alcohol and barbiturates for surcease from their individual life situations. Older professional and executive people, squeezed between decreasing capital but increasing overhead and taxes, appear to be rationalizing that a few more drinks or a few more goof-balls, as the barbiturates have come to be known, are not likely to prove harmful.

This type of thinking results in more and more of our older leading citizens becoming addicted in one form or another. And the curse of enforced retirement, of increasing numbers of men in their early sixties, too often to a life of introspection and boredom, adds its heavy toll. Here psychological factors seem to outweigh endocrine or physiological ones in causation.

With the approach of menopausal or climacteric changes, considerable numbers of people formerly able to control their drinking or their dependence on the barbiturates lose this capacity and join the ranks of the addict. This is further evidence of glandular dysfunction in addictive causation, and focuses attention on the intimate relationship between gonadal and adrenal physiology. Whether more malignant processes are at work in the drug addiction than of alcoholism are not clear. Certainly the rapidity with which drug addiction results rates it the more ominous disease and the more difficult one from which to recover.

Improved methods of treatment have been developed during recent years for both addict and alcoholic. The impetus for renewed interest for research was sparked by Alcoholics Anonymous and the study from Yale Research Center in 1944, and by the near panic of 1950 caused by the teen-age drug scare.

In 1944 a survey of facilities in America revealed only 97 hospitals which would accept alcoholics, as such. A similar survey in 1951 showed over 1,300 general hospitals receiving alcoholic patients, and a number of these have special facilities for alcoholic treatment.

Treatment of the narcotic and barbiturate addict usually requires specialized hospital or institutional care. Medical aids are less than satisfactory, which points up the need for intensified research to assist the addicted drug patient. There is always the potential, particularly during times of national or international stress, for drug addiction to burst into epidemic proportions.

The safeguard here is emphasis on preventive therapy and vigilance in the control of all sedative drugs. Varying combinations of medical and psychotherapy are required to achieve the successful goal of both complete abstinence and growth essential to full recovery. Abstinence should be total and for the balance of the patient's life. Growth implies emotional development from an immature level of judgment which, if not present before addiction appeared, will have developed more or less as a consequence of it.

This total push treatment program includes a combination of all the constructive aids available—medical, psychological, sociological, and, last but not least, spiritual. No one therapeutic discipline will

suffice. One or another combination is imperative and must be adjusted to the individual needs of the addict. Be careful, on prescribing barbiturates for your alcoholic patient, lest you substitute a worse addiction than the one he already has.

Of paramount importance is a continuing rehabilitation program for these patients. They are almost certain to relapse if you forget them after their discharge from the hospital. If you cannot attend him personally, do not discharge your responsibility before negotiating their association with Alcoholics Anonymous, Narcotics Anonymous, or other sound social or medical agencies available in your community. And if such agencies are not available in your community, you can render no greater medical and civic service than initiating a drive in your county medical society, with an invitation to your legal colleagues, clergymen and other public-spirited citizens, to help you.

Remember that there is no longer any such entity as a hopeless alcoholic or drug addict.

115 East 67th Street.

LEGAL ASPECTS OF THE BARBITURATE PROBLEMS IN DELAWARE*

HON. THOMAS HERLIHY, JR.,**
Wilmington, Del.

The topic assigned to me, namely, the legal aspects of the barbiturate problem in Delaware, really falls into two categories:

1. Does the situation in Delaware relative to the use of barbiturates require the enactment of additional regulatory legislation?

2. What type of legislation should be enacted to solve the problem?

As a student of government I have always been of the firm belief that no legislation should be enacted unless the need for such legislation is clearly established. Consequently, as to the first phase of my part of the discussion, I am obliged to examine whether or not the situation here in Delaware has reached the point where the control of barbiturates by additional regulatory measures is necessary. I do not believe that legislators should be stampeded into enacting laws merely because lay publications at periodic intervals paint lurid tales of the havoc wrought by the use of barbiturates. I think it is incumbent on me to examine the statements made in our press relative to the use of barbiturates and to give some recognition to the complaint especially on the part of the local newspapers which have approached this problem with judicial restraint. But apart from what the lay publications may say about the matter there is no doubt but that your own professional journals recognize the seriousness of the problem. Dr. J. M. Maas in The American Journal of the Medical Sciences for August, 1951 states: "A problem of considerable magnitude and with almost endless ramifications confronts almost every thinking and conscientious physician today. This problem concerns the insidious hazards attending the promiscuous use of barbiturates."

You can readily see, therefore, that your own profession is aware of the problem and the statement just quoted is typical of numerous statements of similar nature made in other professional medical journals.

As a lawyer, I know that statements made in the public press are not necessarily the type of evidence which is ordinarily adduced in a court of law. However, no one aware of any social problem can ignore what the lay press is saying, so that it is interesting to briefly examine what has been said. In an editorial in the Journal Every Evening of January 22, 1953 these statements occur in connection with a speech made by Dr. Tarumianz relative to the misuse of barbiturates "The danger in the misuse of barbiturates and their role in the broad problem of narcotic addiction have already been established. Barbiturate poisoning, for example, is more widespread than laymen know. The misuse of sleeping pills, particularly by drug addicts who depend upon them to

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*Read before the Medical Society of Delaware, Wilmington, October 13, 1953.

**Judge of the Municipal Court, Wilmington.

tide them over periods when their dope supply is cut off has given many public health officials considerable concern * * *. Merely to say that Dr. Tarumianz is an alarmist is not answering the pertinent questions (which arise in connection with the misuse of barbiturates). There seems to be a prima faci case for a serious study by the medical profession and the public."

This editorial did not in any way particularize or localize the situation. However, journalist and radio commentator, Bill Frank, in the Morning News of March 6, 1953 quotes a druggist who states: "The sleeping pill business in Delaware is very serious. I agree 100% that it is too easy to get hold of the pills and what's more doctors are inclined to be a bit too free and easy with their prescriptions and refilling prescriptions." He also states "once more I cite Dr. Tarumianz. Since 1947 he has had more barbiturate addicts at the Delaware State Hospital and the Governor Bacon Health Center than drug addicts." Still further he quotes an article which appeared in the American Medical Association magazine "Today's Health" to the effect that "because of the common use of barbiturates many serious automobile and home accidents, by people who appear to be drunk, but who are not, should be credited to this drug."

The Journal Every Evening of March 20, 1953 carried an article which quoted Dr. Donald A. Dukelow of Chicago, to the effect that "these pills (barbiturates) are causing at least one thousand deaths a year and are a contributing cause in unknown thousands of other deaths through accidents and crime." The same article also states that the "Drug Trade News" reported that more than 900,000 pounds of sleeping pills or barbiturates were produced in the peak year 1947—four times as much as ten years earlier. This same article also quotes a statement from the American Medical Association magazine "Today's Health" to the effect "if the 1951 production of 688,500 pounds were divided into doses of one and a half grains each, the usual dose for most of these drugs, there would be enough capsules to put every man, woman and child in the United States to sleep for 20 days."

Too frequently the legal and medical professions ignore the lay comment and criticism and then suddenly find themselves confronted with legislation designed to meet certain situations but which legislation is so unprofessionally prepared as to hamper them in their professional endeavors. I do not come here with the intent to criticize the medical profession. Quite frankly, I am here basically at your invitation to discuss the legal aspects of the problem which obviously implies that I should state what my experience has been as a judge in handling cases where the misuse of barbiturates was apparent, and at the same time to suggest methods by which this misuse can be controlled. To state the matter in another way, I am here to ask your cooperation with a court which is administering justice in an urban community where problems of the misuse of barbiturates more frequently occur than in the rural areas. We need the active support of the medical profession in the solution of this problem and I have cited the foregoing articles from the local press with the idea of emphasizing just what information the public is receiving as to the misuse of barbiturates.

As a judge and lawyer I know what value is to be attached to expert opinion, and there is no doubt in my mind as to the qualifications of Dr. Tarumianz as an expert on this subject. In a public statement in connection with a panel discussion of narcotics and barbiturates Dr. Tarumianz said on January 15, 1953: "The time has come when the public must become more aroused about addiction to barbiturates, even more so than addiction to narcotic drugs, for the simple reason that there is better control of narcotics than of barbiturate drugs and because federal law attempts to protect the public from narcotic drugs with all the might it possesses, while there is no definite enforcement law in regard to barbituric drugs. It is true that most states have laws pertaining to the distribution of barbituric drugs and the sale of such drugs

without prescription from a licensed physician is prohibited by law. However, many barbiturate addicts are able to obtain prescriptions from various physicians not only in their own home towns but even outside of their own states. It is my opinion that amendments to existing state laws should be made to protect the people from such loose distribution of the extremely dangerous drugs, the barbiturates."

If nothing else were said on this subject it seems to me that this statement should be persuasive enough to induce both the legal and medical professions to cooperate to the end that controls could be set up to meet the misuse of barbiturates.

I am sure that most lawyers will agree that expert opinion and testimony alone does not win cases, and that there must also be supporting factual evidences. Consequently, I thought it was necessary for me to cite from my experiences in the municipal court cases which I felt definitely demonstrated that there was a misuse of barbiturates.

Case 1. X was a man in his sixties. He sustained an injury at home and to alleviate pain he had been given "sleeping pills." Then one evening as his relatives indicated, he went berserk. He created such a disturbance in his room that it was necessary to call the police and to have him charged with a breach of the peace. The police could find no evidence of alcoholic intoxication. The next morning in court I was informed that the man had never been known to over indulge in the use of alcoholic intoxicants; that he had been regularly employed for thirty years. A check was made with the employers immediately and this fact was verified. Actually, when the employers learned about his present difficulty they immediately offered assistance because of the fact that they never knew the defendant to do anything improper during the thirty years of his employment. I was determined to check the matter further and learned that in his room at home there were bottles containing pills. With the permission of the defendant and with the permission of the relatives, the police were immediately sent to the house and procured the the bottle containing the pills. There was no instructions on the use of the pills and as the defendant subsequently indicated "he probably took more than he should have taken."

Case 2. Y was charged with driving a motor vehicle while under the influence of an alcoholic intoxicant. He had been observed by two policemen operating his automobile in a reckless manner. The patrolmen who went up to the car after it had been stopped stated that there were four people in the car, including the defendant, and that the inside of the motor vehicle had an alcoholic odor. He stated, however, that the defendant did not have an alcoholic breath. Three empty cans of beer were found in the car. The defendant was brought to the station and given the usual test for driving a motor vehicle while under the influence of an intoxicating liquor. He first stated that he had taken no drugs or pills, and the report indicated that he was under the influence of intoxicating liquor so as to deprive him of the use of his faculties and therefore, he was not able to operate a motor vehicle safely upon the streets of the city of Wilmington. The defendant was represented by counsel at the trial. He denied taking any alcoholic intoxicant on the day of his arrest. He stated that he had been given some pills on the day before his arrest by a nurse at his place of employment. He further stated that the next morning he complained to her again about a headache and that she gave him additional pills and that on the afternoon preceding his arrest he had taken the three pills within a short space of time. Two of the other people in the car testified that they had beer to drink but that the defendant had not drunk any beer or other alcoholic beverage. The defense offered the foreman who stated that he known the defendant as an employee for a number of years and I permitted a question to be asked and answered to the effect that he never knew him to overindulge in the use of intoxi-

cants. I was satisfied that the police were correct in their observation of the intoxicated condition of the defendant and I was also reasonally satisfied that the defendant's condition had been brought about by the misuse of the pills.

Case 3: Z was a man in the forty to fifty year age group who was arrested on a charge of being drunk. Police, however, could not detect any odor of alcohol about his breath and when arraigned in court he definitely appeared to lack coordination and the only information he was able to give us was his address. He could not relate the circumstances leading up to his arrest or where he had been on the day of his arrest. He was examined by the police physician as to his mental capacity and on the second day that he was brought into court his mind seemed to improve as far as clarity but he still could not give us any information as to his activities immediately preceding his arrest. As he continued to give the appearance of being in a stupor the case was continued for another day and on the third day he appeared to have improved and then it was that he informed us that he had taken an over dose of pheno barbital.

I realize any general observation made from the recital of these cases in the municipal court is subject to the logical fallacy of the citing of an insufficient number of cases. However, the cases are typical and are illustrative of what is occurring in some of our criminal courts, so much so that the matter commands your attention.

This brings me then to a discussion of the present Delaware law. Title 16, Chapter 49 of the Delaware Code of 1953 defines barbiturates and other hypnotic and somnifacient drugs. This law provides that there shall not be any dispensing at retail to a person except upon the written prescription of a duly licensed physician, dentist or veterinarian, and requires the pharmacist to affix to the container a label bearing his name and address and the date the drug was compounded and the consecutive number of the prescription under which it is recorded in his files, also the name and address of the physician, dentist or veterinarian prescribing it. It also requires that the direction for use be stated on the label. The sale or possession of any barbiturate drug without the container bearing a proper label giving the name of the drug and the proportion of the amount thereof is specifically prohibited in so far as manufacturers, pharmacists, jobbers and other dealers in drugs are concerned. A pharmacist, physician, dentist, veterinarian and licensed jobber is required to keep a record of the name and address of the patient and the date and name and quantity of the drug dispensed as well as a record of all renewals. You can see from the recital of the foregoing that the Delaware law does provide for the control of "over the counter sales," and it also provides that records be kept. I have studied the model or uniform barbiturate law, the barbiturate provisions of the sanitary code of the City of New York and the laws dealing with the barbiturates in the adjoining states, and also the Durham-Humphrey Act. With these laws as a basis or standard for comparison, it is my opinion that the Delaware Act is defective in the following respects:

1. No state agency is named as the responsible enforcement agency. The State Board of Pharmacy has certain powers and duties requiring prescriptions to be kept for five years and calling for inspection of records and safeguarding of drugs and medicine, and I understand it does keep a check on the records of barbiturates in pharmacies. However, enforcement provisions along this line should be specifically stated in the act.

2. There is no provision for a check being made on the records of the dispensing physician either as to the quantity of the barbiturates he handles or how he dispenses them.

3. There is no time limit in regard to renewals. It is interesting to note that in the sanitary code of the City of New York provision is made that after the second renewal there can be no further

renewal of prescriptions for a period of three months. Whether or not this period is too long or too short a time seems to me to be a question for the medical profession to determine. But I am of the opinion that there should be a definite time limit on renewals in order to prevent the developing of a habit.

4. The Delaware Law does not cover the sale or possession of barbituric drugs by manufacturers and as already indicated merely provides regulations as to labeling. There should be definitely a provision as to what constitutes illegal possession of barbituric drugs.

5. Does not regulate distributing or giving away of barbituric drugs.

6. As already indicated the agency in charge of the records dealing with barbituric drugs should be specifically set forth in the Act. In the enforcement of any law where it is the intent to make the violation thereof a criminal act, penalties should be specifically set forth.

7. The procuring of barbiturates by fraud in my opinion should be made a specific violation and so stated in the act.

8. The manner and recording of sales by manufacturers and wholesale dealers to physicians, pharmacists, dentists, hospitals and veterinarians should be specifically stated.

The July issue of the Journal of the American Pharmaceutical Association in reviewing the status of barbiturate regulations makes this very pertinent statement:

"It was generally agreed that any proposed legislation must go beyond the control of 'over the counter' sales of these dangerous drugs by pharmacists and control the dispensing physician, restrict the refilling of prescriptions, prohibit distribution to illegitimate channels by irresponsible manufacturers and wholesalers and make the unlawful possession of these drugs a criminal offense."

However, no protective measures taken by any one state in my opinion will be effective. I believe that the only way that you are going to bring about the most effective enforcement of barbiturate drugs is to enact federal legislation and put the responsibility for the enforcement of the law under the agency now charged with the handling of narcotic drugs. It should be obvious to you that if one state has strict enforcement and other states do not, the addict will be able to cross state lines and secure the drug. I am realistic enough to know that no positive panacea can be devised for the absolute solution of the problem of the misuse of barbiturate drugs. National legislation to control distribution of barbiturate drugs is inevitable. And in conclusion I would like to again refer to Dr. Maas' article: "In the meantime, careful and intelligent cerebration when this family of drugs is prescribed is of paramount importance. Cooperation between the physician and pharmacist is not only desirable but mandatory. These steps, together with the honest desire to evaluate and treat each case individually, plus conscientious efforts on the part of everyone affiliated with the distribution of these drugs to stamp out the roots of evil when they are encountered, must be achieved. Such action will probably do more to abolish a most unfortunate situation than will well-meant but often poorly conceived legislation or the ill-advised portrayals by the tabloid journals.

North American Building.

DISCUSSION

of papers by DR. LOVELL and JUDGE HERLIHY.

DR. H. T. MCGUIRE (Wilmington): I will say that it is a pleasure to appear after the judge rather than before him. Also, it is a distinct privilege.

I think it is a paradox and an ironical situation that it is necessary for us to have a member of the judiciary come and so eloquently—and I might say so graciously—appeal to our professional and moral responsibility in this serious, challenging situation. To me it is ironical because, above all, the nice things he has said are true, there are legal barriers and legal enforcement that could be put in the present statute in the total picture that are insignificant because the responsi-

bility is ours, and ours alone. People are introduced to these drugs by us, and they are continued in their use by our constant inability to properly evaluate who is to use them and how and under what circumstances.

I think too that using this subject as part of our program should be a tribute to the humanitarian thinking of our president, and also a tribute to the program committee, because we have a tendency sometimes to deal in abstract sciences and forget the humanities of medicine.

I think too that the legal profession in Delaware, and the legislature and the newspapers too, will be more than willing to cooperate, but I think that all of that will be of no value unless we re-assess our thinking in this most provocative problem.

The problem is a challenging one to us. It is a medical problem. It has legal implications, but basically it is ours and ours alone.

I want to thank Judge Herlihy, and I am sure we all join in thanking him for his provocative address on this timely subject. I notice that he not only chose the national but our local people as authorities on the problem.

To get to the initial speaker, Dr. Lovell, I find that his talks always challenge the imagination to a proper and intelligent response, because you will notice that he has taken, if I may use the word that Dr. Tarumianz used, the multifacient approach to this basic problem of dealing with people, because after all, in dealing with alcohol and alcoholics, and barbiturates and barbiturate addicts, there seems to be an insidious similarity.

The program committee asked Dr. Lovell to confine himself to the abuse of the barbiturates, but he said that he couldn't, in all honesty, discuss one without summoning the other.

I want to make one plea, if I can. Please do not prescribe barbiturates to the alcoholic. He will eventually substitute them. Please do not prescribe barbiturates to the strongly neurotic and the patient who might escape from reality with alcohol but who will substitute barbiturates, because they don't smell and they don't make you stumble around quite so much and don't make you quite so offensive in society.

Remember that the alcoholic who stays drunk, or who stays sober, literally, while using barbiturates, might just as well get drunk in the first place. He will substitute one for the other.

Now as to the routine use of barbiturates on every hospital admission. I had someone tell me the other day that he sometimes had to waken his patients because of the overuse of barbiturates.

To sum up this thing, in this age of anxiety the barbiturates have become a mixed blessing. But I must assert and reiterate that Judge Herlihy's legal colleagues and legislative friends, be it on the local, state or national level, can make only a puny contribution to the ultimate solution of this problem. It is allied with our own escape from the realities of dealing with people, that it deals with symptoms rather than with the total person.

We must approach this with judicious thought. I think if you will give conscientious reflection to your own individual action, you will realize the guilt with which we are encompassed in this terrifying and despairing disease.

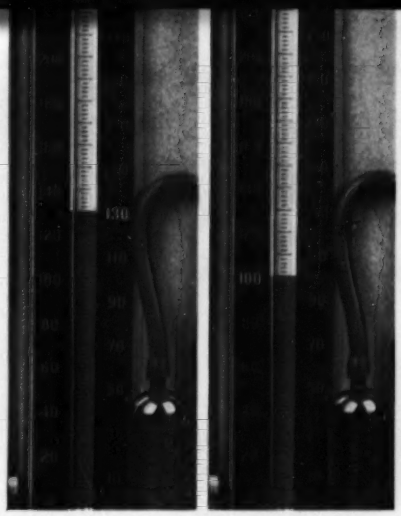
We are grateful indeed—I am sure I am—to Dr. Lovell for his paper and to Judge Herlihy for addressing us in such a fine manner, and to the president and the program committee for including this on the program.

DR. JEROME KAY (Wilmington): I think that it is entirely appropriate that the two papers of the first day's meeting be devoted to barbiturates and their control. In looking up my Gilman and Gilman, 1941 edition, Textbook of Pharmacology, they made the blanket statement that there had been no proof of any addiction to barbiturates up to that time. Apparently, there were no physiologic withdrawal symptoms, although craving did exist. It is interesting that the latest edition of TIME magazine, in their section devoted to medicine, quotes Sir Kenneth Ogilvie.

REPORT ON Apresoline
FROM A STUDY OF 97 HYPERTENSIVE PATIENTS[1]

EFFECTIVE ANTIHYPERTENSIVE

PRODUCT OF CIBA RESEARCH

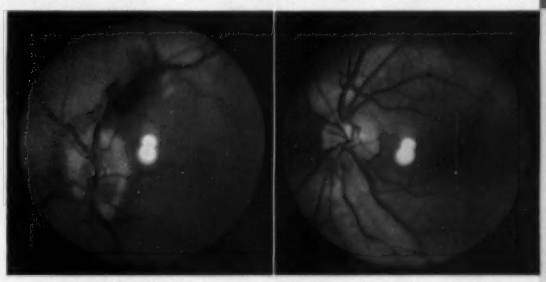


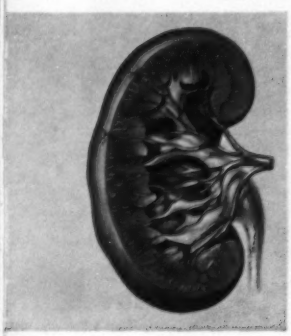
APRESOLINE REDUCES DIASTOLIC PRESSURE

Diastolic pressure reduced to level considered normal in one-quarter and to 110 mm. Hg or less in one-third of 97 patients receiving oral Apresoline for periods ranging from 3 months to 1 year or longer;[1] hypertension in which neurogenic or psychogenic mechanisms predominated most improved; patients with severe as well as moderate hypertension benefited.

APRESOLINE LESSENS RETINAL ARTERIOLAR CONSTRICTION, RETINAL HEMORRHAGES*

Lessening of retinal arteriolar constriction; disappearance of retinal hemorrhages; remittance of hypertensive headaches, giddiness, paresthesias, transient pareses, and encephalopathies; some evidence of improved mental alacrity.





APRESOLINE INCREASES RENAL BLOOD FLOW

Renal improvement less marked than cerebral improvement, but renal blood flow and filtration rate increased and hematuria and proteinuria remitted in some cases; hypertensive heart disease little improved and, in some cases, worsened.

Side Effects: Side effects "minor, transient, or remediable" in most cases. Headache, gastrointestinal upset, periorbital and ankle edema, and a "grippe-like syndrome"—involving malaise and muscle and joint pain (see note)—observed.

Apresoline®

NOTE: Appearance of arthritis-like symptoms during Apresoline therapy is an indication for cessation of treatment. Experience has shown that the phenomenon remits spontaneously on withdrawal of the drug. These symptoms are not likely to occur in patients who receive a daily dose of 400 mg. or less.

FOR COMPLETE INFORMATION on Apresoline ask your CIBA representative or write Medical Service Division, CIBA Pharmaceutical Products, Inc., Summit, N. J. **SUPPLIED:** Apresoline hydrochloride (hydralazine hydrochloride CIBA) 10-mg. tablets (yellow, double-scored), 25-mg. tablets (blue, coated), and 50-mg. tablets (pink, coated) in bottles of 100, 500, and 1000; 100-mg. tablets (orange, coated) in bottles of 100 and 1000.

1. TAYLOR, R. D., DUSTAN, H. P., CORCORAN, A. C., AND PAGE, I. H.: ARCH. INT. MED. 90:734 (DEC.) 1952.

*THE NORMAL FUNDUS (RIGHT) AS COMPARED WITH THE FUNDUS IN HYPERTENSION SHOWING EDEMA, EXUDATES, AND HEMORRHAGES (LEFT): ILLUSTRATIONS FROM "THE FUNDUS OF THE EYE": BEDELL, A. J.: CIBA CLINICAL SYMPOSIA 4:135 (JULY) 1952. THESE ILLUSTRATIONS ARE FOR DEMONSTRATION PURPOSES ONLY AND DO NOT REPRESENT APRESOLINE-TREATED PATIENTS.

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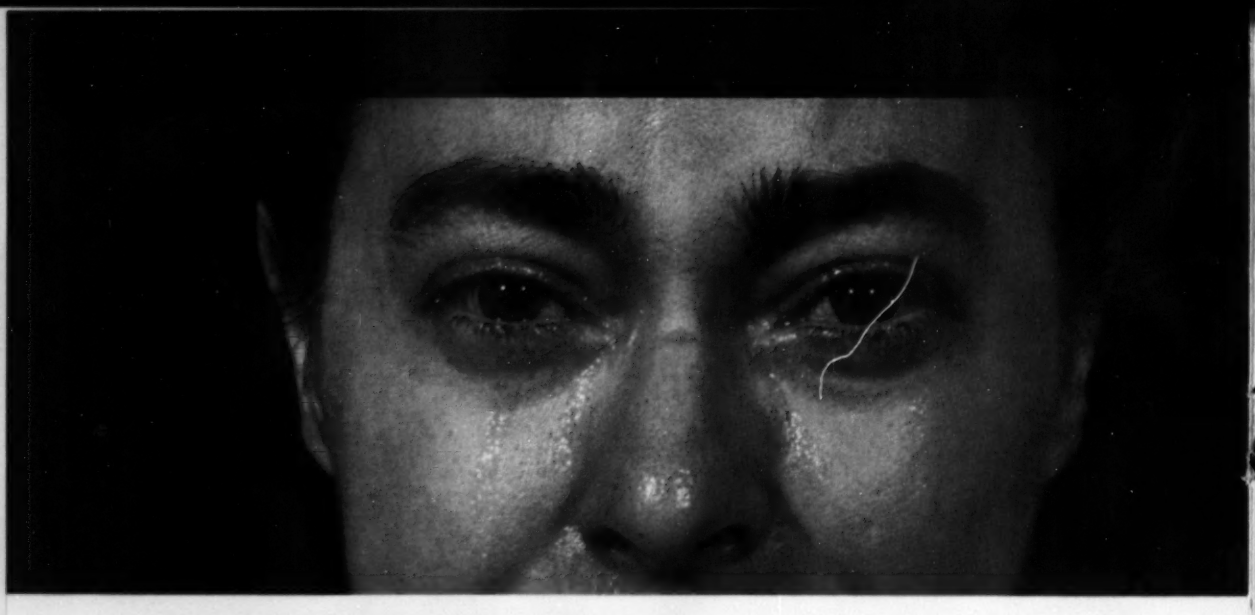
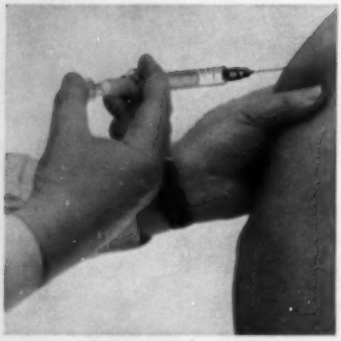


ALLEVIATES HAY FEVER, OTHER RESPIRATORY ALLERGIES

The above photos show a case of allergic rhinitis before and after Pyribenzamine therapy. Many such cases have been reported in the literature. A few examples: Loveless and Dworin[1] found Pyribenzamine beneficial in 82% of 107 patients; Feinberg[2] noted relief in 82% of 254 cases; Gay and associates[3] in 76% of 51 cases; Arbesman and colleagues[4] in 84% of 106 cases. In a later study Arbesman[5] rated Pyribenzamine one of "the most effective of all the drugs studied in allergic rhinitis. . . ." *Side effects:* It has been stated that "undesirable symptoms from the use of 50 to 100 mg. doses of Pyribenzamine were rarely of sufficient severity to interfere with its use."[6] Drowsiness, nausea, epigastric distress, vertigo and other side effects—rarely severe—may occur in some patients.



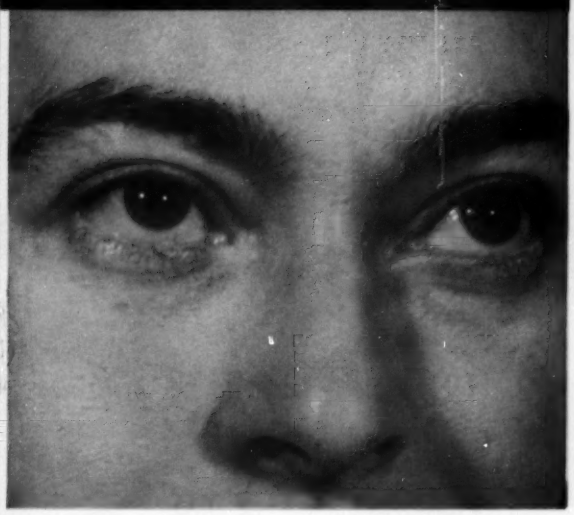
CONTROLS PENICILLIN REACTIONS

Pyribenzamine has been used successfully to control penicillin reactions—especially urticaria and itching. For example, Kesten[7] found that oral Pyribenzamine relieved or suppressed post-penicillin urticaria in 16 of 18 cases; she termed it "a most useful agent in allergic symptoms which follow the administration of antitoxin or penicillin."

RELIEVES ALLERGIC DERMATOSES

Foster[8] reported good results with oral Pyribenzamine in patients with various allergic dermatoses. In another study[9] of 241 such patients, Pyribenzamine was found effective.

CIBA



REPORT ON **Pyribenzamine**

EFFECTIVE ANTIHISTAMINE

PRODUCT OF CIBA RESEARCH

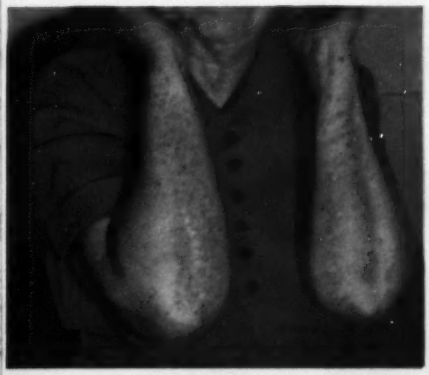
Pyribenzamine 25-mg. tablets now available— for children and for adults who can be maintained on low dosage or who experience side effects from the usual dosage of antihistamines

Supplied: Pyribenzamine hydrochloride 25-mg. and 50-mg. tablets; Pyribenzamine Elixir, 30 mg. Pyribenzamine citrate (equivalent to 20 mg. tripelennamine hydrochloride) per 4-ml. teaspoonful; Pyribenzamine hydrochloride solution (for parenteral use), 25 mg. per ml., in 1-ml. ampuls.

PUBLISHED CLINICAL STUDIES SHOW THOUSANDS OF ALLERGIC PATIENTS RELIEVED BY

Pyribenzamine®

PYRIBENZAMINE HYDROCHLORIDE (TRIPELENNAMINE HYDROCHLORIDE CIBA)
PYRIBENZAMINE CITRATE (TRIPELENNAMINE CITRATE CIBA)



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3. Gay, L. N., Landau, S. W., Carliner, P. E., Davidson, N. S., Furstenberg, F. F., Herman, N. B., Nelson, W. H., Parsons, J. W., and Winkenwerder, W. W.: Bull. Johns Hopkins Hosp. *83*:356 (Oct.) 1948.
4. Arbesman, C. E., Koepf, G. F., and Lenzner, A. R.: J. Allergy *17*:275 (Sept.) 1946.
5. Arbesman, C. E.: J. Allergy *19*:178 (May) 1948.
6. Feinberg, S. M., and Friedlaender, S.: Am. J. M. Sc. *213*:58 (Jan.) 1947.
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9. Morrow, G.: California Med. *69*:22 (July) 1948.

For complete information on Pyribenzamine ask your CIBA representative or write Medical Service Division, CIBA Pharmaceutical Products, Inc., Summit, N. J.

REPORT ON **Priscoline**

EFFECTIVE PERIPHERAL VASODILATOR

PRODUCT OF CIBA RESEARCH

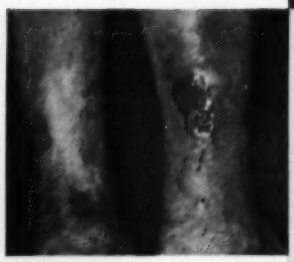
INCREASES PERIPHERAL BLOOD FLOW:

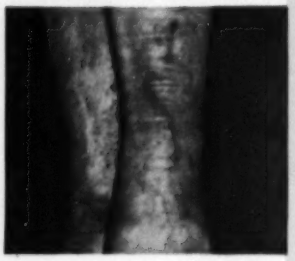
Priscoline reported to be a valuable aid to conventional therapy in peripheral ischemia and its sequelae—pain, loss of function, ulceration, gangrene, other trophic manifestations; Priscoline most effective when vasospasm is prominent but may prove limb-saving even when vasospasm is minimal because it decreases vascular tone, promotes establishment of collateral circulation.

MULTIPLE ACTION:

Priscoline exerts direct vasodilating effect on vessel wall, blocks sympathetic nerves (probably at their terminations in vascular muscle), blocks vasoconstrictive action of circulating epinephrine-like substances.

Side Effects: Certain side effects of Priscoline—"crawling" cutaneous sensation, chilliness with resultant gooseflesh or feeling of warmth—indicate attainment of effective dosage level; occasionally tachycardia, tingling, nausea and epigastric distress, slight hypotensive effect or slight rise in blood pressure may be experienced.



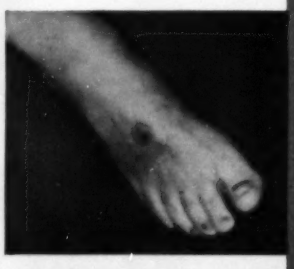


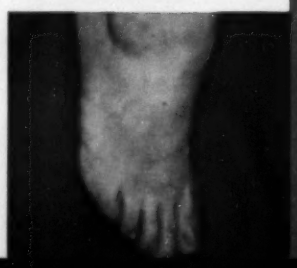
AGE 75. Arteriosclerotic ulceration with erysipeloid reaction and marked inflammation; after administration of oral Priscoline, 25 mg. three times daily, for one week—increased thereafter to 50 mg. four times daily—there is steady improvement, healing in eight weeks. No other medication used.

Priscoline®

FOR COMPLETE INFORMATION on Priscoline ask your CIBA representative or write Medical Service Division, CIBA Pharmaceutical Products, Inc., Summit, N. J. **SUPPLIED:** Priscoline hydrochloride (tolazoline hydrochloride CIBA) is available as 25-mg. tablets (scored), bottles of 100 and 1000; elixir, 25 mg. per 4 ml., in pints; 10-ml. multiple-dose vials, 25 mg. per ml.

Photographs and accompanying clinical data by courtesy of R. I. Lowenberg, M.D., Consultant in Vascular Surgery, Connecticut State Hospital, Middletown, Connecticut.





AGE 68. Arteriosclerosis obliterans cellulitis; sluggish response to saline dressings and procaine penicillin 300,000 units daily; healing speeded by oral Priscoline, 25 mg. four times daily for one week, 25 mg. every three hours thereafter; healing within six weeks.

9/7907

His comment was that Britain was in danger of becoming a nation of barbiturate addicts. One-tenth of the prescriptions written were for barbiturates in the year 1951; half of the suicides in 1951 were due to barbiturates. Dr. Ogilvie adds rather ironically a comment about the possible consequences of chronic barbiturate intoxication.

I think it gives us something to think about. We all know that as physicians we are constantly facing patients with diffuse anxiety, patients who stand in front of us subjectively tense, uncomfortable, inwardly nervous, or who present symptoms in their viscera resulting from anxiety, or the symptoms of insomnia. What can we do? These patients give us a great deal of pressure. We want to do something for them.

I would like to make a plea along the lines of what we physicians perhaps have contributed to the development of excessive dissemination of barbiturates. I think as physicians we should be far more judicious, and we should not disseminate these drugs as promiscuously as we have in the past. As a psychiatrist, I think we should look into the motivation of what we physicians have done. There is a need for us doctors to do something very specific. Under the aegis and the exigencies of the situation of the uncomfortable patient in front of you, looking at him and talking to him with the pressure of a full waiting room outside, and very little time to listen to him for fifteen or twenty minutes, it is quite easy to give him a prescription.

The danger in this situation, I think, has been well studied by the experts in the field. Dr. Isbell's work in Lexington has been well reviewed by Dr. Lovell and by Judge Herlihy today. But I do make this plea as my salient point, that we become far more discriminating and control the use of barbiturates. I feel that as general practitioners you men can do a great deal of good office psychotherapy.

I believe it takes a certain amount of soul-searching into oneself to tell a patient, "I do not want to give you sedation." We can substitute some non-habit forming drug, but this has not proved to be the case.

I think we should tell the patient no, even though we have the fear inside that this patient will go down the street and get the barbiturate there. That is a rationalization, and I think we have to take a firm stand.

I would like to use the word psychiatrists bandy about. Instead of multifacient, we use the word wholistic, meaning that the judge, clergy, physician all work together, because it is only in this way that we can obtain our common goal.

I was talking with a judge the other day and he commented that it was rather strange to see two psychiatrists agree. He had a report from me and another psychiatrist on a patient, and they agreed. I think it is fortunate that we all agree, as Dr. McGuire said, that the barbiturate is a blessing and a curse.

Again I want to stress the working together of all groups, and also the soul-searching on the part of the physician to disseminate these drugs only when they are specifically indicated, and to people who will not become addicted.

DR. LOUIS B. FLYNN (Wilmington): Dr. Lovell's talk was most stimulating; Judge Herlihy's was most sobering. I think I can agree with most of the suggestions outlined by Judge Herlihy, although perhaps not in all details without further study. It might, however, be very worth while for our legislative committee to sit down with Judge Herlihy and see what can be done to improve our present regulatory mechanisms in the control of this difficulty we have been discussing.

The present arrangement of writing prescriptions with a time limit on renewal has been in effect in this area a very short time. Until a year or two ago, we were regulated mainly by an unwritten law among the pharmacists, and it was not concurred in by all of them. It has only been a year or so that it has been more difficult to get prescriptions for barbiturates refilled. Therefore, perhaps in the foreseeable future, the problem may

abate somewhat. Nevertheless, I feel we should go ahead and investigate better regulatory mechanisms.

Dr. McGuire and Dr. Kay have pointed out that we should get our own house in order first, and with this I heartily agree. Carelessness in prescription is not to be endorsed. From the medico-legal angle, or the poisoning angle, that problem may not be solved by these other measures entirely. Anyone who intends to commit suicide will probably secure available medicine, if he is sincere about it. You are all acquainted with the patient who will get two or three or four prescriptions of barbiturates, not take any of them, and then six months later take them all at once. In such instances, and in other cases which come up in Judge Herlihy's court, the problem might be more quickly solved if the methods of blood level estimation of the drug were made.

This further points up one facet of the problem which has not been touched upon, which would include certain criminal cases, and perhaps fatal cases, where such examination would be most important, and which points up another reason for the desirability of a medical examiner for the State of Delaware.

DR. M. A. TARUMIANZ (Farnhurst): There is very little to add to Dr. Lovell's presentation of this very well prepared paper. I fully agree with Judge Herlihy, with whom I discussed this matter on many occasions, that the moral issue itself is not going to solve the problem. I think we are all inclined, morally, to help our patients, and we promise ourselves not to be indiscriminate in regard to prescription of barbiturates. Nevertheless, we do continue prescribing indiscriminately at all time; at least we all do at some times.

There is no reason for us to try to falsify our own doings, nor is there any excuse for us to try to solve the problem on merely moral issues. Nor can this problem be solved by legal procedure. I think it is primarily an educational problem. I think people must be educated as to the damage they are doing themselves.

Unless we prepare our people, excepting the ten or fifteen per cent who are too ignorant to understand the problem per se, I doubt very much that either the legal procedure nor the moral issues will help to the extent that it will solve the problem.

I think this is a matter of self preservation for our nation. I don't care what we heard about Great Britain. That is a humanitarian problem when it comes across the ocean. But right here in our own home we are confined with such a terrific increase of deaths due to barbiturate poisoning, of drug addicts among the teen-agers, that it seems to me something should be done. And who is better qualified to educate the people than the medical profession itself?

My plea is, in addition to all the legal aspects, to try to educate our people as to the seriousness of this situation at the present time. I don't think alcoholism is as serious as the drug addiction, particularly due to barbiturates. Substitution can be made.

I often think, on this matter of prescription by a physician, that a simple placebo sometimes will do just as well in minor cases as the prescription of barbiturates.

As men who have practiced medicine for many, many years, you have heard plenty about this particular problem in our midst. It seems to me that I can't find any solution in my thinking, in my study, except approaching the people and expressing our own opinion in regard to the danger that they are confronted with.

MR. CAVANAUGH: I read these articles; I have listened to these talks. There is one thing I would like to say. Most of the prescriptions are filled by druggists, we hope. When any law is written, or discussed, I believe that some druggist, appointed by the Board of Pharmacy or the Pharmaceutical Society, should sit with those people so they make a law that won't require another secretary and another clerk to keep records. They write these laws with no concept of what the poor druggist has to do to observe them.

In other words, they write them and somebody else has to live up to them.

I agree that there should be a law, possibly, but let's make it one that you can work with without the addition of another clerk.

DR. HARRY TAYLOR (Wilmington): I have a question or two to ask. Can we swing over to the use of chloral hydrate without running into the same problem?

Also, if we run into the use of elixirs as placebos, will we run into alcoholism, and is there any drug therapy that we can use safely without going into psychotherapy on a grand scale?

DR. H. A. TARRANT (Wilmington): I wonder if Dr. Lovell would make any comment on the drug Dormison? I would like him to say something on that, not that I am picking out any manufacturer.

DR. A. R. SHANDS (Wilmington): Are there any specific antagonists to barbiturates taken for suicidal purposes in great doses, that can be taken safely and will do any good? We have found none.

DR. TARUMIANZ: May I ask Judge Herlihy to explain to the Society how should we proceed in regard to the federal law, that is, the establishment of a federal law? Does he have any suggestion?

President Washburn: Are there any other questions or any other remarks or discussion?

I may say that I have taken great satisfaction in the program this afternoon. I did have a very small part in arranging this, but it seemed to me that from the point of view of my experience and contact, that this was a very important subject and deserved the thoughtful attention of both the medical and legal profession looking toward a future method of correction.

If I may, before I turn the subject back to the speakers, express the point of view —and this point has been made by one speaker here—that it is our responsibility as members of the medical profession as to whether we are careless about the prescribing or the dispensing of these drugs.

The plea has been made that we must educate the people. I wish to remark, as one who has spent many, many years in hospital life, that I am convinced that it is one of the things we must do, one of our responsibilities, to educate our house officers not to routinely write the orders for patients. I had that trouble when I was in active practice. It was so commonplace for orders to be written when there was no present indication; it was simply routine. I think we must teach our people to practice differently.

If there is no further discussion from the floor, I call on Dr. Lovell to close his part of the program.

DR. LOVELL: I am deeply grateful to Dr. Washburn and to Dr. McGuire for the invitation to participate in this discussion with you today, and I am deeply grateful also to Drs. Kay, Flynn, and Tarumianz for discussing the paper, and to the others.

It is particularly gratifying to a psychiatrist to have his colleagues discuss his paper and agree with him. Usually, the speaker gets torn to pieces. Wonderful indeed, then, that not only two, but three or more, psychiatrists can agree, and wonderful also, I think, that we physicians can meet with members of the legal profession. I think that they, and we, the clergymen have a great deal to offer in unison on this problem.

I wish to add any support that I may to the use of education in handling this problem. I do not believe that one can legislate abstinence or do a great deal in controlling the subject of addiction by legal rules. However, they are important, and I think that they should be given a great deal of calm and sober thought, and not have resolutions passed when mass hysteria and pressure bring their weight upon the legislative groups.

Is there any specific antagonist to barbiturate drugs? I know of none.

Is it wise to use chloral hydrate or paraldehyde, or some other sedative drug, in place of the barbiturates? The answer, I believe, is an emphatic no. Chloral hydrate has some advantages over barbitu-

rates, but patients can become addicted to chloral hydrate and to paraldehyde.

I think that rather than prescribe placebos—they are wonderful in their place—it is important through education and through spending a little extra time with your patients, if you can, to teach these patients that it is normal to sleep and that it isn't important whether they lose a few night's sleep. We have had patients who have lost, as nearly as I can tell, a week's sleep. If they can be taught to lie quietly, not to read, smoke cigarettes, drink coffee, pace the floor, they will get enough rest, and after a while they will be surprised to find that they can sleep without depending upon sedatives.

I don't know of any drug that one can prescribe safely. In my 25 years of practice I have had one drug after another recommended to me as a safe drug, nonhabit forming. The barbiturates, demerol —you know all of them as well as I. Now we have mephenesin and tolserol. I use them a great deal in the treatment of alcoholism. I believe they are good. Tolserol is a relatively new drug. So far as we know, it is not habit forming, but it is young; we have still something to learn about it.

I had a very wealthy alcoholic patient who was using barbiturates. I say I had him because I felt that he was alcoholic. He disagreed. I refused to give him barbiturates, so he left me. His wife reports that he is having difficulty getting barbiturates either from New York doctors or New Jersey doctors, where he lives, and at the present time his defiance has led him to take somewhere in the neighborhood of 80 Dormison tablets a day.

I don't know yet what the effect of this drug is. It must be relatively mild because he is still able to navigate with 80 Dormison tablets a day.

I would emphasize, therefore, in conclusion, intensification of research, and to educate our people better. And we physicians, I think, should do it, and the place we should begin is in the high schools or the late elementary schools.

JUDGE HERLIHY: I want to say right off, Mr. Cavanaugh, that I agree with you that when legislation is written it should by no means be so worded as to increase the clerical detail and work. However, I have thought of that matter in connection with any records to be maintained, as far as these drugs that we have been discussing are concerned, and I have felt that if there were a uniform record method set up, as has been done with narcotic drugs, that same idea could be carried over to the field of these barbiturate drugs.

However, I want to say also that in any group that prepares the legislation for control of these drugs, druggists should play an important part, in my opinion.

I agree with Dr. Flynn 100 per cent about the establishment in this state of a medical examiner. I think that would terminate many of our difficulties. The outmoded coroner's office is not only a matter of antiquity, and archaic, but is also, in my opinion, a deterrent to carrying out justice. I recall very distincly, since I was the prosecutor at the time, that we went into the arsenic investigations as a result of the activities of the Petrillo gang in Philadelphia, and we had one instance here in Wilmington that if we had a medical examiner the prosecution would have taken place at a much earlier time than it did, and not a year later after the decedent had been buried for a time.

Not only does that go for arsenic poisonings but also it would be of assistance in determining the real cause of death in some of these cases which we attribute to these drugs we have been discussing.

I could be very trite and platitudinous, Dr. Tarumianz, in saying "write your Congressman," but that wouldn't be the answer as to whether we are going to get this on the federal level. They tell me that the reason why a narcotic division, or the Bureau of Narcotics, which administers the narcotic drugs, does not want to take over these barbiturate drugs is due to the cost of enforcement and the employment of additional personnel.

It is my very humble opinion that that

whole department should be re-surveyed, and that steps should be taken to see just what they do need. In order to get that done, obviously we will have to use some national groups, like your national medical groups, your national legal groups, and your national pharmaceutical groups. I have no other way. And if it does need additional appropriation, then of course we have to do it on the state level and start writing our Senators and Congressmen.

Dr. Flynn mentioned the time element between prescriptions. I think that they may have been the implication, or maybe I am taking the wrong implication. Dr. Flynn, I think that if you will recall, in my paper I did call attention to the fact that I suggested any manner of dealing with the time lapse between the prescriptions should be something that should be decided by the medical profession. I don't think that ought to be left up to any legislative group or lay group.

I welcome any suggestion that would be made by your group in the event that you decide to have a joint committee to prepare legislation to control these drugs.

Once again I want to thank you for the spirit that has been shown here, and the courtesy that has been shown to me as a member of the bar and as a member of the judiciary, and I am certain that if the efforts that have been indicated by your remarks here are brought about, we will accomplish proper control of these drugs.

ACUTE CARDIAC EMERGENCIES*

WILLIAM LIKOFF, M. D.,**
Philadelphia, Pa.

Acute, severe interference with the heart's ability to perform work is a medical emergency, with death the implied or actual threat. The practicing physician is confronted with this problem routinely.

The most dramatic cardiac emergency is alive one moment, dead the next. In a single, convulsive physiologic upheaval, the heart ceases to function.

Fortunately, most emergencies are not as dramatic. In truth, they are as prosaic as pain, as routine as fainting, as common as coughing. To recognize them masquerading in such benignity is the sharpest kind of contest.

What are some of the earmarks? Most everyone is quite aware of the significance of chest pain in relation to heart disease. It is the first expression of coronary artery disease. It is experienced at the onset of certain acute arrhythmias. It may be constant in aneurysm, and acute and severe in dissection of the aorta. It is common with embolic issues. The physician must be alert to pain as a cardiac symptom, and able to differentiate it from similar expressions of lesser disease.

Syncope and vertigo frequently are indications of important cardiac illness. Syncope occurs in Adams-Stokes disease where the ventricles are functionally inactive, in fibrillation, or asystole. It is encountered in aortic stenosis and insufficiency, and interestingly enough it may be an initial symptom of acute infarction when the myocardial insult results in cerebral anoxia. This same anoxia may occur at the onset of any acute arrhythmia or tachycardia.

Paroxysmal dyspnea is a third common symptom of severe cardiac dysfunction. It is the classic manifestation of exhausted myocardial reserve, and is common in hypertension, coronary artery disease, rheumatic valvular and luetic heart disease, as well as uncontrolled paroxysmal tachycardia. When the myocardium fails, insidiously persistent cough and wheezing respirations with effort are directly caused by this beginning inadequacy.

Hemoptysis is a fourth symptom of important heart disease. It is a manifestation of severe pulmonary hypertension in rheumatic valvular afflictions--usually mitral stenosis. Actually it represents a momentary failure of the pulmonary circulation. The symptom is likewise encountered in pulmonary infarction, and in the pulmonary edema of hypertension and coronary artery disease.

With the recognition of these signs of impending or actual cardiac disaster comes the responsibility of treatment. It is rare

*Read before the Medical Society of Delaware, Wilmington, October 14, 1953.
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that a single therapeutic maneuver, however proper, satisfies the entire issue.

Let us examine some of the usual cardiac emergencies and their treatment.

Coronary Occlusion. This is perhaps the most significant of the cardiac disasters. At the onset, however expressed, the urgent need is for a quiet resting heart. The opiates are the most accomplished agents in satisfying this need. Whether morphine, demerol, pantopon, or dilaudid is used, the dose must be liberal enough to ensure comfort and rest. Repeated smaller doses increase the possibility of urinary retention and respiratory depression.

There is excellent evidence that oxygen relieves pain and improves cardiac function by actual correction of the pathophysiology of a myocardial infarction. Animal experimentation suggests that the actual size of the infarction may be reduced by the use of oxygen. Certainly it is an important supplement early in the disease and may actually modify the need for opiates.

Initially, shock or a severely hypokinetic circulation may accompany coronary occlusion. This profound problem is not to be confused with a rather ordinary fall in blood pressure. It is marked by a restless, comatose or semi-comatose state where the pulse is small, the skin pale and cold, and the blood pressure almost unobtainable.

Since the pathophysiology is poorly understood, the therapy is often confused and ineffectual. Classically, the patient is kept warm, given high concentrations of oxygen, and certain vasopressor drugs thought pharmacologically capable of increasing blood pressure without further constricting the coronary circulation. Such products include norepinephrine, neosynephrine, paredrine, vasoxyl, and wyamine.

The dose for norepinephrine is 4 cc of a 0.1% solution which is diluted in dextrose and is given 20 to 30 drops per minute. The dose is continued until the systolic blood pressure is maintained routinely at least at 100 mm of mercury, and can be maintained as such with decreasing doses of the drug.

Paredrine is generally used in 10 to 20 mg of injection and is generally given intramuscularly.

Wyamine is given in 5 to 15 mg doses, intramuscularly, or 50 grams is diluted in 100 cc of glucose and distilled water and given, again, 20 to 30 drops per minute.

Vasoxyl is given in doses of 40 mg in 500 cc of distilled water and glucose, and again is given 20 to 30, or at times, 40 drops per minute.

It has been our experience, at least, that of all these vasopressor drugs, probably vasoxyl is the most effective. The mortality in the severely shocked group remains 90 per cent in spite of these drugs.

It is perfectly possible in instances of acute myocardial infarction in this extreme state to maintain systolic blood pressure for a continual period of time, and then find, after 24 to 36 hours, that in spite of the vasopressor drugs, urinary output has practically quit and the patient will subsequently die of retention and uremia.

This point is cited only to illustrate that the entire answer is not in these vasopressor drugs.

Investigations have suggested that shock can be combated by early transfusion or infusions of concentrated glucose, plasma, or human albumin. The dose of plasma is generally 250 cc given not less than in two hours, and human albumin is given in doses of 2 to 4 routine units, not less than two hours. Some success has been attained with this therapy. The most significant encouragement, however, has resulted from inter-arterial transfusions. Surprisingly, heart failure has not been produced or increased by this method. The only contra-indication is a marked rise in venous pressure, or severe pulmonary edema. Although difficult to institute, inter-arterial transfusion promises reasonable hope in an otherwise desperate issue. The danger in any intravascular therapy in coronary occulusion is that one may overshoot the mark and throw the patient into pulmonary edema. The rate of flow in any of these methods should not exceed 200 cc per two hours.

Pulmonary edema may complicate the earliest phase of coronary occlusion.

When advanced shock does not accompany this left ventricular failure, it is best that the patient be placed in the upright position or in a chair. This maneuver, taking advantage of the force of gravity, decreases pulmonary congestion, increases vital capacity. It is important to realize that the chair position does not imply more liberal activity on the part of the patient. The fact that the patient is sitting upright does not give him the privileges of going to the bathroom or of walking about the room. It is only a position.

As an outgrowth of this acute departure from the classical edict of absolute bed rest in myocardial infarction, it has been suggested that patients be placed in a chair after pain and shock have been overcome to prevent future pulmonary edema. That is generally within 48 hours. This particularly holds true for those individuals that have given some indication of being in pulmonary edema, however slight, at the time of their initial infarction.

Drug therapy differs somewhat when congestion of the lungs complicates myocardial infarction. Digitalis or the related glycosides are generally withheld for fear of producing ectopic rhythms, or adversely affecting cardiac output. There are many occasions, even early in myocardial infarction, when digitalis cannot be set aside, regardless of the calculated risk.

Acute arrhythmias may complicate myocardial infarction, increasing the hazard in an already established emergency. Atrial arrhythmias generally subside without embarrassing the integrity of the cardio-vascular system. Ventricular tachycardia, however, must be treated vigorously by those methods to be discussed separately.

The use of anticoagulants is not truly an emergency measure. A commitment is generally made promptly, but it has no influence on those maneuvers designed to obtain immediately a restful and efficiently working heart.

So much for coronary occlusion.

Acute Left Ventricular Failure. This emergency is met in patients with structural heart disease, particularly the hypertensive patient. Again, opiates and oxygen are the immediate therapeutic measures of choice. Morphine given intravenously may miraculously quiet the restlessness and tumultuous breathing which accompanies the threat of suffocation.

Patients should be placed in the upright position. If not, they will assume it themselves.

The administration of oxygen is most effective under a positive pressure of 3 to 5 cms with the concentration at 50 per cent and the flow at 8 liters per minute. Positive pressure masks, however, are often uncomfortable, and under such circumstances the use of an ordinary mask or catheter is entirely warranted. The use of an oxygen tent must be safeguarded by those measures which ensure adequate concentration of oxygen and which make sure that the patient, and not the mattress or the bed clothing, or the room, gets the oxygen.

Recent experiences with caprylic alcohol vapors have been most encouraging. Caprylic alcohol is thought to reduce the intra-alveolar congestion and exudation. It acts in somewhat similar fashion to what you suppose atropine is doing, when you give it together with demerol. This has been a rather encouraging way of treating congestive failure and pulmonary exudation, and today we routinely use it when we have the opportunity.

When it has been satisfactorily determined that acute pulmonary edema has not been precipitated by a myocardial infarction, digitalization may be planned. So frequently, practicing physicians in acute pulmonary edema will give morphine and digitalis in one fell swoop, without taking the time to inquire or to determine whether or not acute myocardial infarction has resulted in the pulmonary edema. You must permanently and definitely determine whether such has occurred before you plan your digitalization.

There are many effective, rapidly acting products available for oral or parenteral use. These include oubain, lantoside C, digitoxin, and digoxin. The intravenous doses of these products are rapidly disseminated, and oral maintenance should be

instituted within 24 hours after you have committed yourself to intravenous use.

Oubain, not generally popular, but effective nonetheless—it is extremely popular in Europe—is given in a dose of 0.5 mg. intravenously. Its great drawback is the fact that it must be given intravenously, and the subsequent doses are given every half hour to one hour, 0.1 mg., until the apical rate is 90 or less, or the total dose has reached 1 mg. That means that you have to do constant intravenous therapy, which is a nuisance.

Digoxin may be given in an initial dose of 1 mg. and 0.25 mg. may be repeated every four hours until a maximum of 3 mg. has been administered.

The dose schedule of digitoxin is somewhat different: 0.6 to 0.7 initially, with 0.2 mg. every four hours until 1.2 to 1.6 mg. has been given.

The initial dose of Lantoside C varies from .4 to .8 mg. Succeeding doses of 0.4 mg. every two hours may be given until 2.4 mg. is reached.

Dose schedules, and this is probably most vital, of any of the digitalis-like drugs are not fixed patterns. They are to be intelligently modified according to the clinical picture. Signs of toxicity are to be respected.

Whenever pulmonary edema is accompanied by marked venous engorgement or a severe hypertension, the ancient venesection or more modern bloodless phlebotomy may be effective. The bloodless phlebotomy is probably less effective than the venesection. It is accomplished by applying tourniquets to all four extremities. These are tightened at one time. Each is released in rotation at 15 minute intervals.

After the application of these measures, a mercurial diuretic may be administed intramuscularly or subcutaneously in order to establish an edema-free state.

Acute Arrhythmias. From the patient's standpoint, any paroxysmal tachycardia is an emergency. However, unless structure disease is present, danger is rarely real. A notorious exception is ventricular tachycardia. It is an ominous complication of myocardial infarction. Occasionally this form of tachycardia results from toxic doses of digitalis.

Quinidine sulphate and pronestyl or procaine amide hydrochloride are the specific corrective drugs.

Quinidine sulphate should be administered in large doses orally—0.6 grams every 2 to 3 hours until the rhythm is abolished or until signs of toxicity develop. The latter include intraventricular conduction defects, and prolonged ventricular systole, and are discovered only on electrocardiographic examination. Nausea, vomiting, diarrhea and tinnitus are generally indications of gastric or eighth nerve irritability and when severe require the drugs to be discontinued.

Recently, quinidine hydrochloride, lactate, gluconate and sulphate have been prepared for parenteral use. The latter means intramuscular use for those of us who commonly use the drug. I think it should be accepted as a firm and complete contraindication that this drug ever be used intravenously. There is another drug that is safe.

Pronestyl is most effective orally and intravenously. Although this drug is capable of causing some fall in blood pressure when used by vein, it is a safer drug than quinidine used in a like manner. The maximum dose by vein is 200 mg. per minute, with an absolute limit of 1 gram. Orally, five 250 mg. capsules are administered, followed by three such capsules in one and again two hours, if required.

We stated that digitalis may actually cause ventricular tachycardia, and yet it may be used when congestive failure complicates that arrhythmia. This departure from classical teaching remains to be fully confirmed.

Although a relatively benign arrhythmia, **atrial fibrillation,** occurring in the course of surgery or as a complication of severe organic heart, may require attention as a true cardiac emergency.

Most clinicians prefer under the circumstances to control the ventricular rate with full doses of digitalis. Quinidine is subsequently introduced if reversion to normal sinus rhythm is desired. The dose of 0.4 grams every three hours will abolish

most attacks of atrial fibrillation. Much higher doses have been used without difficulty but anticoagulant therapy is recommended in the presence of mitral stenosis or myocardial infarction where embolism is likely to occur.

Atrial flutter is treated as an emergency in a similar fashion. The first requirement is the control of the ventricular rate with full digitalization. This results in one of the following eventualities: the flutter may be converted to fibrillation and remain as such; the fibrillation may then be reverted to normal sinus rhythm by quinidine; fibrillation may revert to normal sinus rhythm when digitalis is withdrawn.

The last cardiac emergency, **Adams-Stokes Disease.** This seizure, marked by syncope or intense vertigo with or without convulsions, is generally caused by ventricular fibrillation or standstill which complicates complete heart block. The differentiation between fibrillation and asystole is possible only with an electrocardiogram. But the drug therapy depends upon such a differentiation. Under the circumstances, a sharp and forceful blow across the breast may be the best treatment of choice during the emergency, forceful in some instances to the point where ribs have been fractured. Such a blow may initiate normal cardiac action in a ventricle that is fibrillating or in complete asystole.

When a recognition of the ventricular action is possible through the electrocardiogram, epinephrine in doses of half or a whole cc may be injected at short intervals for standstill, and quinidine or pronestyl may be utilized for fibrillation. Unfortunately, in many of the electrocardiograms obtained, the ventricle is fibrillating at one moment and standing still the next. These drugs cannot be used interchangeably, and when both fibrillation and asystole coexist, no adequate therapy is available.

Occasionally, **ventricular fibrillation and standstill** are emergency states during surgery. There is no substitute for exposure of the heart and actual massage. It is superior to electrical stimulation, at least that type of electrical stimulation that we have available today. This procedure, however, must be immediately instituted or otherwise is ineffectual heroics.

Most of these emergencies are readily diagnosed at the bedside and in the office. Diagnosis is more a recognition of ordinary symptomatology than an understanding of precision instruments. The speed with which the physician applies a therapeutic agent may or may not be a reflection of the profound understanding of the presenting problem; the effectiveness of the agents he chooses, however, generally is in direct proportion to that understanding. Cardiac emergencies respond to accurate therapy, and in subsiding leave many years of useful living against the erosion of time.

249 N. Broad Street.

DISCUSSION

DR. J. R. DURHAM (Wilmington): I want to thank Dr. Likoff for a very excellent presentation on cardiac emergencies. Dr. Likoff has been intimately associated with our Wilmington group on many of our mitral valvulotomy cases, and I know him to be a very competent cardiologist.

In opening the discussion, I would like to ask one question concerning digitalization. Does Dr. Likoff believe that with the rapid glycosides that we are using now a patient can de-digitalize himself?

On the paroxysmal tachycardias, which the doctor covered so well, if we see a case at home it is quite true we don't have a cardiogram with us, as a rule. We recognize the presence of a tachycardia, and a great majority are not emergencies in the medical sense. They are, of course, as far as the family goes, or sometimes the patient, who is aware of this terrific raid.

Assuming that we have some doubt as to whether we might be dealing with a paroxysmal or a supraventricular tachycardia, would you say a word about the treatment? In other words, should we use quinidine even though we do not have the base line tracing?

DR. E. R. MILLER (Wilmington): I see Dr. Phillips down in the audience. A number of years ago I discussed Dr. Wolferth's paper, and he said "You made a longer talk than Dr. Wolferth," so I'll have to watch myself today.

Cardiac emergencies, I think, are seen probably more by the general practitioner. I did general practice for ten years and I realize that. It presents a challenge to the ingenuity, the intuitiveness of the doctor, and really brings out the thought that medicine is an art.

You have three types of situations to deal with. You have the family, the patient, and the disease.

In the first place, as Dr. Durham said, an emergency to one is not such an emergency to another, and it is a question of making a proper diagnosis. As Dr. Durham said, you don't have the electrocardiographic machine, and it presents a challenge. Fortunately, the patient is either dead or still alive, and if he is dead the diagnosis is speculative. Sometimes that's wrong. Not long ago, a case diagnosed as coronary thrombosis was found, after a post-mortem, to be a case of pulmonary infarction, and double indemnity was collected by insurance.

But coming back, I would like to comment on a few points of Dr. Likoff's splendid paper. I thought his paper was so complete that there was not much left to say. It was interesting with regard to his caprylic alcohol inhalations. My patients prefer to take it inwardly rather than by breathing it in. I don't know too much about this new method but I do believe that alcohol has a definite place.

As to the use of digitalis preparations in contrast to oubain, I do think that we have neglected the use of oubain in this country as compared to Europe. There may be reasons for that. One thing is that many of our patients may have received digitalis previously and it is very important for the house doctor to call up the family, or for the attending physician to make sure that this patient did not have digitalis previously.

Another point with regard to emergencies in treating coronary thrombosis. About three weeks ago I was asked to see a patient as an emergency. The cardiogram was normal, and the enthusiastic interns were giving heparin. I inquired carefully whether the patient had a dissecting aneurysm, and I was assured he didn't. The later x-ray diagnosis proved to be dissecting aneurysm. The only contribution I made was to have them stop the heparin, which you know would be absolutely contra-indicated if a patient did have a dissecting aneurysm. There is no emergency in using heparin or dicumarol.

Another point which is interesting is intra-arterial transfusions. This has not been established at our hospital but I do think it needs to be speculated on. I have heard a talk where as much as 24 pints of blood were given in six hours intra-arterially.

Dr. Likoff brought out the point of using norepinephrine. I think that has been a great contribution recently in that it is highly imperative not to allow the pressure to be too low, and it has been life-saving in some of our cases.

As I said before, his talk has been so complete that it leaves very little to say, but no talk is complete unless you differ with the speaker, and I want to challenge this one in a most friendly way. He said there is absolutely no use for quinidine intravenously. There are no absolutes. I remember, before the days of pronestyl, I saw a patient who was comatose, who was on his way out, which means close to his demise. He was in ventricular fibrillation. Quinidine in those days was not available. I am glad it is on the market now because I still think there may be some use for it intravenously. So we sent down to the drug store where we could get dilute hydrochloric acid, and diluted the quinidine in that and gave it intravenously, slowly and carefully, and the patient miraculously made a comeback, temporarily. But it was like making his last stand, because the next day he did make his exit. But at least we had prolonged his life, I think, for 24 hours.

So we could go on talking, like the man in California who liked to stand up and talk about heart disease for a long time. But in order to save myself from another criticism from Dr. Phillips, I want to say in conclusion that I think Dr. Likoff's talk was very well presented. He covered his subject thoroughly. And I think the comments of Dr. Durham also were well made.

DR. W. W. BRIGGS (Wilmington): I should like to ask Dr. Likoff two questions. Recently there has been observed, following the use of the pressor drugs in conditions of shock, cardiac and otherwise, the later appearance of jaundice, which in at least two patients has been transient jaundice, sufficiently transient not to be able to determine whether it was obstructive or due to peptocellular damage. I doubt if the drug was given according to the directions which he indicated in his talk, but I should like to know if that has been an observation of his.

The other question is whether there has been any experience with the use of atropine intravenously, in relatively large doses, in an effort to overcome the initial shock with the cold, clammy-voiced patient with severe hypotension.

DR. J. J. SELINKOFF (Elsmere): I would like to ask whether in these cases of acute paroxysmal arrhythmias, which seem to occur rather frequently in the same patient, whether digitalis should not be given as a routine, steady treatment, the same as you would in a case of cardiac decompensation.

DR. SIDNEY CHAVIN (Wilmington): If you are dealing with a case of acute dyspnea, which may be associated with some allergy, would you still use opiates?

DR. LIKOFF: I would like to thank, first of all, Dr. Durham and Dr. Miller for their kind discussion, and those of you who were nice enough to ask very interesting questions.

First of all, in response to Dr. Durham, when insulin first came out I understand that this was almost a fixed pattern of those who were most interested in the treatment of diabetes. There were very many variations of the insulin product which were available for distribution to the medical profession, and those who were wisely guiding the treatment of insulin in those days decided that we had better have one product, well understood, and least confusing, rather than many with very great variations.

Sometimes I wish the same things had been done with digitalis and the varying glycosides because we now have, as you know, very many digitalis products and allied drugs, which make the situation very confusing. The issue that Dr. Durham brought up is a very true one. We have some very rapidly acting digitalis products, the most popular of which is digoxin, and patients can become de-digitalized, so to speak, under what is ordinarily accepted as a routine maintenance dose.

It has gotten so now that in the teaching of the subject matter, you handle each digitalis product, or its glycoside, according to its capability and not as an overall drug. For example, I liken digoxin to a man who wants to stay on his toes as a boxer, shifting from position to position. It is a light drug. It will lose its effect quickly, and you use it under circumstances where you do not want a heavy hand on a heart, perhaps a heart that is prone to get premature ventricular contractions.

So one must be very careful in the utilization of these products and what they are actually able to do. You cannot interchange digitoxin, digoxin, and the rest of the drugs with impunity just because they are presented to you as being more potent and more acting.

The second question, as I have it recorded here, was with respect to Dr. Miller's statement that quinidine had been used intravenously in the past. I too enjoyed that sensation of using it and having it as a life-saving procedure, but I advise against its use today only because a safer drug is available in pronestyl, which deserves its own precautions. But in a pinch I think quinidine can be used.

I suppose that we use pressor drugs more commonly than anybody else. There is scarcely a cardiac surgical problem that enjoys the sensation of being operated on and coming back without vasoxyl in his vein. We have never seen jaundice following it. As I say, we use it five or six times a day, in 24-hour periods, without any difficulty at all. It might exist—I don't say that it doesn't—but I have just never seen it.

In answer to your question about atropine for shock, I have never used it. I

can see what your pharmacological idea is behind that suggestion. I just never used it myself, or heard of it being used for that particular problem.

As far as digitalis is concerned for use as a steady diet for people with arrhythmias, there are people whom it will benefit. It isn't as effective a drug as other paroxysmal tachycardia drugs. A person digitalized may go into atrial fibrillation, but his ventricular response may be so well regulated that he may not be conscious of the paroxysmal arrhythmia. So that it serves the purpose in atrial fibrillation.

It has a deterrent in its use in that regard because it has a tendency to fix fibrillation in a set pattern once atrial fibrillation has taken place. I prefer not to use it as a preventive unless I am actually forced to, and if forced to, would restrict its use to that.

Health education is an aspect of all education and is a life-long process. James M. Mackintosh, Prof., European Conference on Health Education of the Public, London, England, April 10-18, 1953.

Careful clinical evaluation of each person found to have suspected tuberculosis on a miniature film is of great importance in predicting the likelihood of future disability or death. Wendell R. Ames, M.D., and Miller H. Schuck, M.D., Am. Rev. Tuberc., July, 1953.

A very large percentage of tuberculous persons remain unknown to public health authorities, and their lesions are generally extensive and many months or years old when they finally come to medical attention. The fact that most patients are in a fairly advanced stage of disease when their tuberculosis is first diagnosed is of extreme importance, not only because it adds difficulties to their treatment, but, even more, perhaps, because it is responsible for giving these persons countless opportunities to infect, unwittingly, many of the human beings with whom they come into contact. Rene J. Dubos, Ph.D., Am. Rev. Tuberc., July, 1953.

Close correlation between social disturbances and mortality rates suggests that in most civilized communities large number of tuberculous patients live in unsteady equilibrium with their disease and survive only as long as a peaceful, comfortable, and protected environment is provided for them. Rene J. Dubos, Ph.D., Am. Rev. Tuberc., July, 1953.

Mental institutions in many of the states have developed programs for the control of tuberculosis among their patients. These programs, while differing in detail, are alike in their stress upon the importance of case finding and segregation in the prevention of tuberculosis, and their success is justification of the emphasis placed upon these features of tuberculosis control. Because of the excellent results obtained by long-term tuberculosis control programs in these states, it is difficult to understand their absence in others. Editorial, Julius Katz, M. D., NTA Bulletin, Feb., 1954.

The patients considered not suitable for home care are those with progressive disease requiring constant medical or nursing care and those with open cavities and persistent tubercle bacilli in the sputum. Those patients need active measures such as surgical therapy or involved diagnostic procedures, and are best kept in the hospital. Furthermore, home care is not used for custodial types of patients with chronic fibrotic tuberculosis. Editorial, GP, Jan., 1954.

In 1949, the chiefs of field party (Institue Inter-American Affairs) had been requested to furnish a list of the 10 diseases which were considered the most serious public health problems in the countries in which they were resident. . . A total of 35 different diseases were enumerated as major public health problems in the 13 lists returned. Of these only one disease, tuberculosis, appeared in all the lists . . . malaria in 11, and whooping cough in 10. No other disease approached such unanimity except measles, which was included in eight lists. Institute of Inter-American Affairs, Pub. Health Reports, Nov., 1953.

+ Editorials +

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THE ITALICS ARE OURS

The controversial Bricker Amendment to the U.S. Constitution is not dead, nor, in our opinion, should it be. Just barely defeated, it should be borne in mind by the medical profession especially, in view of present and proposed international commitments. Lest we, as a group, become a bit rusty on the subject, we append herewith the thoughtful editorial from the *New York State Journal of Medicine* for June 15, 1954, as follows:

OF THIS AND THAT

Of the desirability of long life, opinions may vary. Some may hold with Cuthbert that "It's a short life and a gay one." Others may hold with William Morris[1] that this is "A world made to be lost—a bitter life 'twixt pain and nothing tost." Or with Hamlet:[2] ". . . There's the respect that makes calamity of so long life . . ." Or with John Gay[3] "Life is a jest, and all things show it; I thought so once, but now I know it." But whatever may be thought about it, the fact seems to be that we will have to put up as best we can with more of it. For,

> With the continuing decline in mortality in our country, the chances that an individual will reach the age sixty-five have greatly increased. Under the mortality conditions prevailing in the United States around 1900, nearly 40 out of every 100 newborn white boys could expect to reach the threshold of old age. For a boy born in 1930 the chances of attaining age sixty-five were 53 in 100; currently they are 64 in 100.
>
> Most persons who attain age sixty-five can expect to live for a considerable number of additional years. More than one half of the white men who celebrate their sixty-fifth birthday will survive another twelve years, and one fifth for twenty years. The outlook is even better for women; one half of those who reach age sixty-five will live to age eighty, and about one fifth will celebrate their eighty-eighth birthday.[4]

To make our longer lives interesting there is, happily, always controversy. Says the *J.A.M.A.*[5] of a currently lost cause:

> The controversy stimulated by the amendment to the Constitution proposed by Senator Bricker and 63 of his colleagues has spread to every segment of our population, including the medical profession. The American Medical Association has received a number of letters from physicians during the past few weeks expressing various sentiments concerning the proposal. Some endorse the amendment wholeheartedly; others have deplored the intervention of organized medicine in what they consider to be a nonmedical issue; still others have requested additional information defining the threat to our system of medical care posed by our present method of negotiating and ratifying treaties.

This cause for the moment is lost but will come up again probably next year. For this reason, and to have something to chew on in the interim, we review the matter.

In tracing the interest of the medical profession in the Bricker amendment, it is important first to recognize the fact that *treaties become the supreme law of the land if ratified by two thirds of the Senate present and voting.* In addition, it must be noted that *significant changes have occurred during the past few years in the scope of treaties and executive agreements*

1 The Earthly Paradise.
2 Hamlet, Act III, Scene 1.
3 His own epitaph.
4 Statis. Bull. Metropolitan Life Insur. Co., Nov., 1953, p. 1.
5 J.A.M.A. 154: 620 (Feb. 20) 1954.

whose ratification would change our domestic laws.

In the health field three specific situations can be explored. They deal with the activities of the United Nations treaties of friendship with other countries and the conventions of the International Labor Organization.

The United Nations Charter, which was ratified in 1945, has two general sections that lay the framework for broad treaty provisions in the field of health. Article 55 provides in part: "The United Nations shall promote solutions of international, economic, social, health and related problems." Article 56 provides that "all members of the United Nations pledge themselves to take joint and separate action in cooperation with the organization for the achievement of the purposes set forth in Article 55." *Agreements and treaties negotiated pursuant to these provisions could fundamentally change medical practice in this country if ratified by two thirds of the Senate present and voting.*

The second example deals with a series of friendship treaties that were before the Senate this past year. These include treaties with Denmark, Holland, Israel, and Greece, which dealt with immigration quotas, citizenship requirements, and matters of professional licensure in the various states. *If these treaties had been ratified as originally prepared, some of the requirements of the state medical licensing boards would have been abrogated.*

The International Labor Organization, an affiliate of the United Nations, in June, 1952, adopted a convention known as the "Minimum Standards of Social Security." This convention includes almost all of the socialist medical proposals that have until now been rejected by the Congress. *If this convention is ratified under the existing provision of our Constitution, government control of medicine will have been achieved.* Because of the danger of the socialization of medicine via international treaty, the American Medical Association favors a redefinition of existing treaty-making powers.

The exact wording of a suitable amendment is a matter for constitutional lawyers to determine, not for physicians. The House of Delegates of the American Medical Association recognized the impropriety of an action to endorse the wording of any specific bill and therefore endorses the principles embodied in Senate Resolution No. 1. Whether modifications of that resolution achieve the objectives sought is primarily a legal issue. Certainly the interest of the medical profession in this historic and constitutional controversy is wholly proper. The action of the House of Delegates was based on careful study, the resolution adopted temperate and reasonable.

Of course, the hydrogen bomb in irresponsible hands could radically change things statistically and lend support to William Morris' rather dour idea as quoted above, but isn't such a development a seemingly expensive method of eradicating controversies? Why not just wait for something to go wrong in the universe, and in the meantime, with income taxes paid, enjoy the spring as it "unlocks the flowers to paint the laughing soil?"

BOOK REVIEW

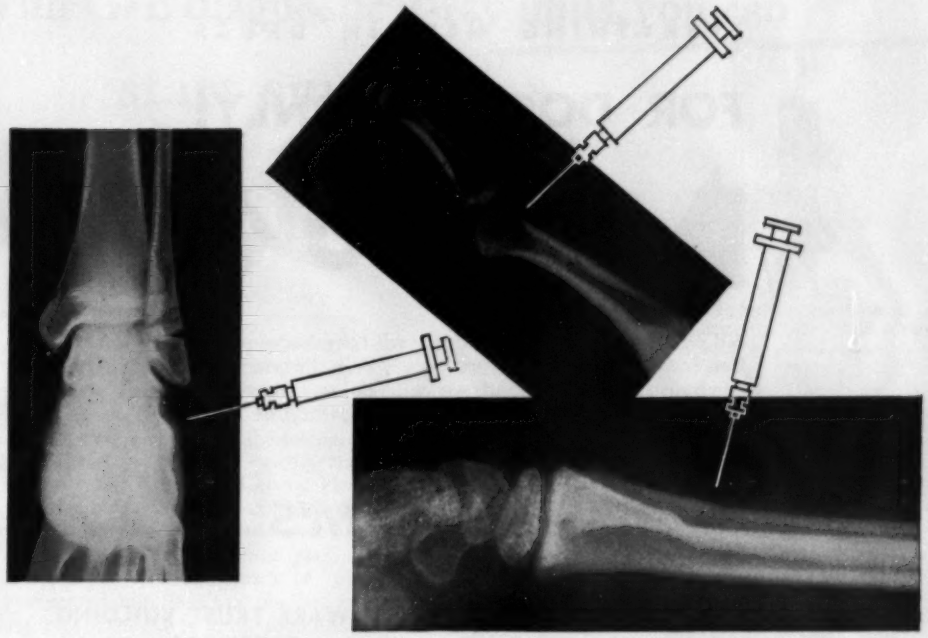
1954 Medical Progress. Edited by Morris Fishbein, M. D. Pp. 345. Cloth. Price, $5.00. New York: The Blakiston Company, 1954.

A review of medical advances during 1953 is given in this volume by 28 competent authorities in each of the fields concerned.

This is definitely not a text book which describes in detail any new treatment. The authors outline briefly what they consider new developments in the various medical fields during 1953 and their application in general terms.

Many references are given at the end of each chapter. We might suggest that these references would be of greater value to the busy physician if the author and title of the subject were given so that the ones of greater interest could be looked up.

The book is well written. A complete index adds to its practical reference value.



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1. MacAusland, W. R., Jr.; Gartland, J. J., and Hallock, H.: The Use of Hyaluronidase in Orthopaedic Surgery, J. Bone & Joint Surg. *35-A*:604 (July) 1953.
2. Swenson, S. A., Jr.: Minor Surgical Aspects of Closed Wounds, Am. J. Surg. *87*:384 (March) 1954.

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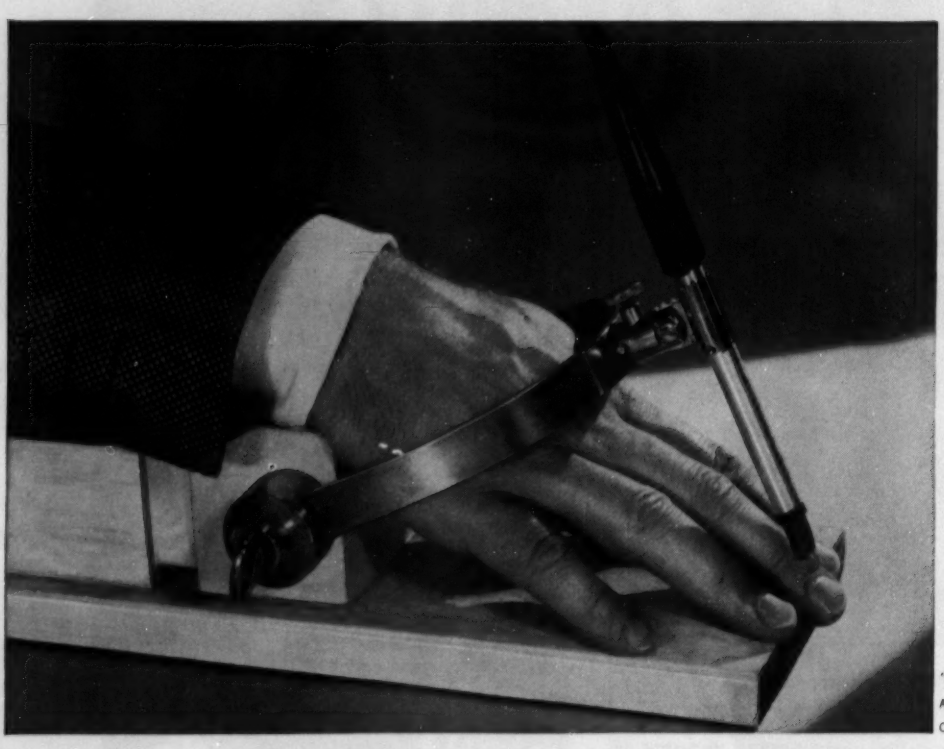

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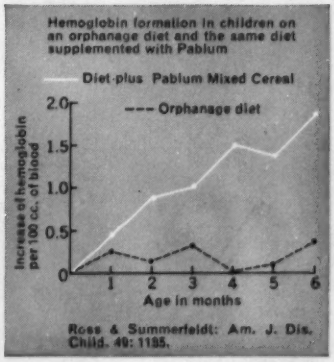

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2. Jeans, P. C., in A.M.A. Handbook of Nutrition, ed. 2, New York, Blakiston, 1951, p. 280.

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